

## CRYPTIC COLORATION IN *SCHIZURA IPOMOEAE* (LEPIDOPTERA: NOTODONTIDAE), WITH A NEW HOST PLANT AND DISTRIBUTION RECORD<sup>1,2</sup>

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**ABSTRACT:** Cryptically colored larvae of *Schizura ipomoeae* were observed feeding on black hawthorn, *Crataegus douglasii*, foliage near Wenatchee, Washington, during July and August, 1985. This represents new distribution and host plant records for *S. ipomoeae*.

The procryptic habits and appearance of twig-like geometrid larvae are well known (Poulton 1890). However, there are few known examples of feeding by cryptically colored lepidopterous larvae, whereby chewed foliage resembles the herbivore. W.G. Müller described the behavior of a South American nymphalid larva, *Anaea* sp., which chews the leaf of its food plant so that a number of rough models of itself remain attached to the leaf midrib. It then positions itself on an adjacent midrib. The deceptive effect is even more remarkable due to coloration of the larva: green dorsally and dark ventrally, the green simulating leaf remnants attached to the midrib (*In* Cott 1966).

On July 18, 1 and 6 August, 1985, 10 mature larvae of *Schizura ipomoeae* Doubleday (Lepidoptera: Notodontidae) were observed feeding on black hawthorn, *Crataegus douglasii* Lindley, foliage on an east-facing slope approximately 16 km south of Wenatchee, Chelan County, Washington, at elevation 670 m. Observations were made for a total of 120 minutes in the late afternoon on 15 plants ranging in height from 1 to 1.5 m.

Chewed leaves on the plants examined comprised approximately 10% of the total number of leaves, and the section of plant "cut out" by larvae resembled late instars in form and coloration. The color pattern of *S. ipomoeae* larvae was remarkably similar to the brown, mottled pattern of foliage being consumed (Fig. 1). Larvae were positioned along intact and chewed leaf edges and initially were very difficult to see, especially because diurnal feeding was slow, and the larvae moved very infrequently. These findings confirm an early report by Packard (1895) that larvae of *S. ipomoeae* resemble foliage. Madsen and Hoyt (1957) also reported protective coloration in *S. ipomoeae* on plum.

*Crataegus douglasii* is added to the list of host plants mimicked by *S. ipomoeae*. Peterson (1962) lists the following hosts: *Quercus*, *Acer*,

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*Betula*, *Rubus* and *Gleditsia tricanthus* L., honeylocust. Seitz (1924) lists, in addition to the above hosts, *Ulmus*, *Vaccinium* and *Ceanothus* in the northern states and *Ipomoeae coccinae* in the Gulf states. In Idaho *S. ipomoeae* has been recorded from prune (Manis 1954). This is the first record of *S. ipomoeae* from Washington. It has been recorded from the eastern states (Packard 1895) and from Idaho (Manis 1954) and California (Madsen and Hoyt 1957).

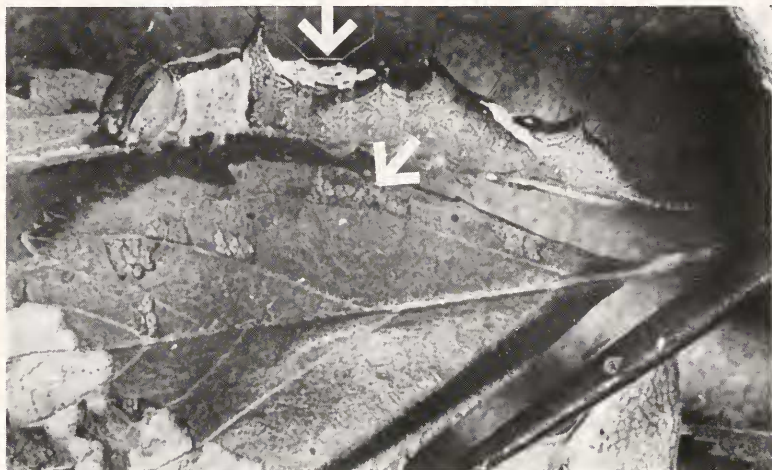


Fig 1. Cryptically colored *Schizura ipomoeae* larva on a new host plant, black hawthorn, *Crataegus douglasii*. Brown, mottled pattern of the larval integument and necrotic areas on the leaf are strikingly similar.

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